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CLAIMS

What is Claimed is:

Sub Q1

1. An outward facing camera system comprising:
a plurality of equatorial cameras distributed evenly about an origin in a plane; and
a plurality of polar cameras coupled to the equatorial cameras and tilted above the plane.
2. The outward facing camera system of Claim 1, wherein the equatorial cameras face radially outwards from the origin.
3. The outward facing camera system of Claim 1, wherein the polar cameras face radially outwards from the origin.
4. The outward facing camera system of Claim 1, wherein a first equatorial camera is offset approximately 90 degrees from a second equatorial camera.
5. The outward facing camera system of Claim 1, wherein each equatorial camera is offset from an adjacent equatorial camera by the same equatorial adjacent angle.
6. The outward facing camera system of Claim 1, wherein each of the polar cameras is tilted out of the plane by an equatorial offset angle.

7. The outward facing camera system of Claim 6 wherein the equatorial offset angle is in the range of 52 to 76 degrees inclusive.

8. The outward facing camera system of Claim 1,
wherein the plurality of equatorial cameras outnumber the
first plurality of polar cameras.

9. The outward facing camera system of Claim 1,
wherein each of the polar cameras is separated by a polar
adjacent angle equal to approximately 120 degrees.

10. The outward facing camera system of Claim 1,
wherein a vertical field view of a first equatorial camera
is equal the vertical field view of a second equatorial
camera.

11. The outward facing camera system of Claim 1,
wherein a horizontal field view of a first equatorial camera
is equal the horizontal field view of a second equatorial
camera.

12. The outward facing camera system of Claim 1,
wherein a vertical field view of a first polar camera is
equal the vertical field view of a second polar camera.

13. The outward facing camera system of Claim 1,
wherein a horizontal field view of a first polar camera is
equal the horizontal field view of a second polar camera.

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22. The outward facing camera system of Claim 1, having four equatorial cameras in the plurality of equatorial cameras and three polar cameras in the first plurality of polar cameras.

23. The outward facing camera system of Claim 22, further comprising a second plurality of three polar cameras tilted below the plane.

24. A outward facing camera system comprising:
a first camera;
a second camera coupled to and adjacent to the first camera, wherein the first camera and the second camera are offset by a first offset angle; and
a third camera coupled to and adjacent to the first camera, wherein the first camera and the third camera are offset by a second offset angle differing from the first offset angle.

25. The outward facing camera system of Claim 24, wherein the first offset angle is approximately 90 degrees.

26. The outward facing camera system of Claim 26, wherein second offset angle is in the range of 52 to 76 degrees inclusive.

27. The outward facing camera system of Claim 24, further comprising a fourth cameras coupled to and adjacent to the third camera; wherein the third camera and the fourth camera are offset by a third offset angle.

1 28. The outward facing camera system of Claim 27,
2 wherein the third offset angle is approximately 120 degrees.

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4 29. An outward facing camera system comprising:
5 a plurality of equatorial cameras distributed
6 evenly about an origin in a plane; and
7 a plurality of polar cameras in operative relation
8 to the equatorial cameras and tilted above the plane.

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10 30. The outward facing camera system of Claim 29,
11 wherein the equatorial cameras face radially outwards from
12 the origin.

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14 31. The outward facing camera system of Claim 29,
15 wherein the polar cameras face radially outwards from the
16 origin.

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18 32. The outward facing camera system of Claim 29,
19 further comprising a second plurality of polar cameras in
20 operative relation to the equatorial cameras and tilted
21 below the plane.

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